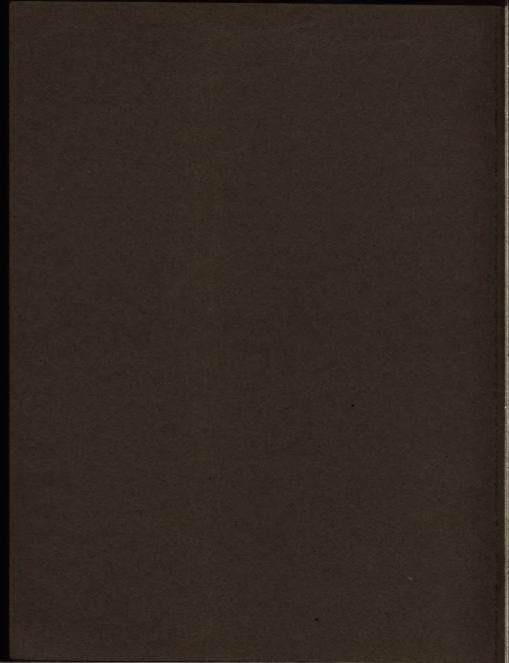
# Dicture lighting

Friek die bes



### Frink Reflectors

... For...
Lighting Pictures
Art Galleries
Decorated Ceilings
Cove Lighting
Stained Glass
Etc., Etc.

Protected by Patents Issued Sept. 29, 1903, June 15, 1909, July 27, 1909

I. P. Frink, Inc. 24th Street and 10th Avenue, New York Established 1857 OR years we have made a careful study of the lighting of paintings, singly and in groups.

We have lighted thousands of pictures and most of the prominent galleries, both public and private. Our extended experience and thorough knowledge of the requirements in this particular field is an assurance of satisfactory results

Single Picture Lighting gives us better opportunities for treatment and more perfect results are obtained. Each picture is treated according to its characteristic requirements; two pictures of the same size may require entirely different intensities and quality of light. Too high intensity will absorb delicate colors. The source of light must be properly located to avoid glare or blurred effect in canvas.

Individual Reflectors are provided with special patented brackets which allow adjustment in height, extension and angle of maximum intensity after being attached to back of picture frames. (See Fig. 1, page 5). This method of installation is preferable as it permits pictures being moved to other positions without leaving the walls or ceiling disfigured with screw holes.

Size of Reflectors, number of lamps, candle-power, etc., are governed by the dimensions of the picture. Reflectors should not be as long as the width of picture. The length depends to a considerable extent on how far the reflector extends from the picture and the extension in turn depends on the height of the picture.

Broadly speaking, the length of the reflector should be from one-half to two-thirds the width of the picture. If the reflector is as long as the picture is wide, considerable light is spread beyond the picture on the wall. Owing to the extension necessary in order to secure evenly diffused light over the entire surface of the canvas, this should be avoided.

See last page for standard reflector lengths and full size end views.

Extension of Reflectors. (See Fig. 1, page 5.) The distance the reflector should extend from the picture (a) depends principally on the height or length of picture. The horizontal measurement is the width, the vertical measurement, height.

Canvas measurements, not including frame:

Height					Extension to La Centers Appro									s Approx.			
	inches																
24	inches															12	inches
36	inches															16	inches
48	inches															22	inches
60	inches															28	inches
72	inches															34	inches

Measurements are from canvas to lamp centre.

The extension is affected by the distance from the top of picture to floor, also by size of reflector and height of reflector above picture (b). This height is determined by

the height of the picture from the floor.

If the picture hangs low, so the top is only slightly above the eye line, the reflector can be placed with the bottom the same height as the top of frame without any back reflection or glare; however, if the picture hangs high, it is necessary to raise the reflector some distance above the picture.

Lamps. As a rule carbon filament lamps will give best results. The candle power depends on size of pictures and color treatment.

finish. Standard finish is gold bronze to match picture frames. Where desired we cover the reflectors with silk or plush to match wall covering.

Recommendations. When requesting information kindly give height and width of canvas, whether landscape or portrait, light or dark treatment. We will be glad to send a representative to obtain necessary data to enable our Engineering Department to make recommendation free of charge.

If desired we will send our expert, who has made a special study of this work to give advice and personal attention to the execution. For this service we make a reasonable charge, based on number of pictures and traveling

expenses.

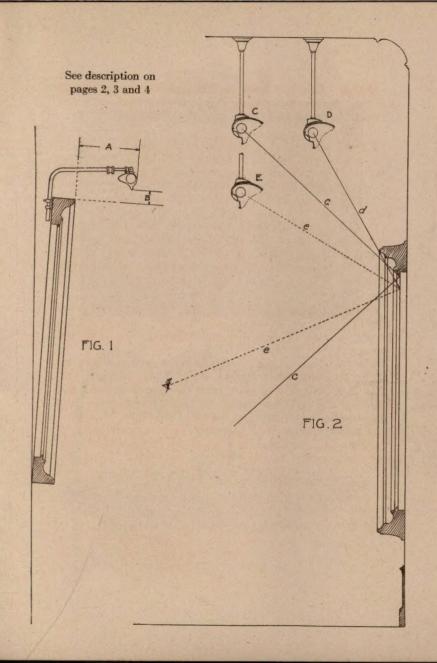
Gallery Lighting. Much trouble will be avoided by consulting us while the plans are being drawn, as the proper location of reflectors and wire outlet is very im-

portant.

The two main points to consider are to install the reflector high enough above the top of picture space to eliminate back reflection or glare from the highest picture, and out from the wall far enough to eliminate shadows from heavy frames on the lowest pictures. (See Fig. 2, page 5.)

We will be pleased to cooperate with your Architect or Engineer and guarantee satisfaction in all cases where our

recommendations are followed.





Cut showing reflector installed on picture.

#### HAND HAMMERED SCALLOP SHELL

For attaching to back of picture frame.



4	inch	No.	700	List	Price	\$46.00
51/2	inch	No.	701	List	Price	50.00
7	inch	No.	702	List	Price	54.00

#### Picture Reflectors

See page 1 for description, and page 21 for reflector lengths and full size end views.



No. 7053 Made in sizes B-D-C and E.



No. 704 Made in B sizes only.



No. 705 Made in B sizes only.



No. 706 Made in B sizes only. FOR PRICES SEE PAGE 16

#### Special Reflectors



No. 707

Made to rest on mantle or bookcase and light picture above.

For price see page 16.



No. 708

Made to light curio cases through glass top.



No. 709

Plain design for curio cases.

Prices on Nos. 708 and 709 will be given on receipt of information as to size of case and finish desired.

#### Portable Stand Reflectors



Furnished with 20 feet of silk cord, plug and lamp.

For lighting single pictures, tapestries, etc. Can be easily moved from one point to another. Adjustable as to height and angle of reflection. Very handy fixture. Can be placed in corner of room or in closet when not in use.

Brass No. 710

Adjustable in height

and angle of reflection.

Black Iron No. 711

FOR PRICES SEE PAGE 16



DAY

#### DAY-ILLUMINATION-NIGHT

Practically the same effect is obtained by Day or Night. The artificial light comes from the same direction as the daylight. There is no glare on the pictures when viewed from any position. The intensity in the central part of the room is 60 per cent. less than on the picture space, leaving the eye keen for detail and color values. The size of this room is 28 x 44 feet. The glass area of ceiling is only 560 square feet, less than half the ceiling area.

We believe this to be the best lighted gallery in the world.

SEND PRELIMINARY PLANS FOR RECOMMENDATIONS



NIGHT

#### DESIGNED BY FRINK

After careful research, we have accumulated data regarding all available sheet glass, as to transmission, diffusion, color values, reflection, cleaning problems, etc.

We are prepared to furnish expert advice regarding design, glass area, and type of glass for skylights and glass ceilings of every description. Disagreeable shadows and structural visibility can be avoided; predetermined intensity and color tones insured. The next time you want advice about skylights and glass ceilings, ask us. We know what you need and how to secure satisfactory results.

OUR ENGINEERING DEPARTMENT IS AT YOUR SERVICE



Specially designed reflectors suspended from ceiling—the light is directed on the picture space. Lamps concealed from central portion of room. These reflectors are made both plain and ornamental in design. Size and exact position of reflectors depend on height of picture space, height of ceiling and distance of reflector from side wall.

We will be pleased to submit full information on receipt of details.



Private art gallery. Daylight and artificial illumination through glass ceiling panels. This treatment will give excellent results but care must be taken in selecting the glass, also in the design and installation of the lighting equipment.



Lighting through glass ceiling panels.





Indirect lighting from coves.



Price List

ТҮРЕ	LIGHTS	LIST PRICE	TYPE	LIGHTS	LIST PRICE
7053	1	\$18.00	7053	1	\$16.80
В	2	24.80	D	2	21.40
_	3	30.80		3	26.80
	4	37.40		4	33.40
	5	40.00		5	38.80
	6	45.00		. 6	42.50
7053	1	14.60	704	. 2	52.00
C & E	2	18.80		4	60.00
705	2	45.00	706	2	45.00
	4	72.00		4	72.00
707	2	66.00	710	1	76.00
BRASS ONLY	4	86.00	711	1	45.00

All the above reflectors with the exception of No. 707 are finished in mat gold to match the picture frames. This finish is applied with pneumatic spray and can be toned to match antique frames if desired.

For reflectors made entirely of brass add 80 per cent. to list price.

No. 707 is furnished with electroplated finish to match mahogany, or gun metal to match dark walnut, or with grained finish to match any kind of woodwork.

#### Partial List of Galleries

#### and Individuals Using Frink Reflectors

AKRON, OHIO
A. H. Marks
E. C. Thaw
ALBANY, N. Y.
A. N. Brady
Jas. Fenimore Cooper

N.

BAY CHESTER, N. Y.
A. M. Huntington
BERLIN, GERMANY
Franz von Medelsohn
Robt. Warschauer
BEVERLY, MASS.
Mrs. R. D. Evans
J. O. Wardwell
S. W. Winslow
BEVERLEY FARMS, MASS.
Chas. H. Tweed
BOSTON, MASS.
R. S. Agassiz
Francis Bartlett
Mrs. Robert M. Bradley
Samuel Carr
Robert E. Evans
T. Jefferson Coolidge
Geo. Folsom
Roland C. Lincoln
Nathaniel Thayer
BRIDGEPORT, CONN.
Dr. T. D. Warner
BRIDGEPORT, CONN.
Dr. T. D. Warner
BRODKLYN, N. Y.
J. S. Pietsch
BROOKLYN, N. Y.
P. Ross Appleton
J. W. Brown
A. B. Chapman
Mrs. E. T. Weil
BUFFALO, N. Y.
F. L. Pratt

CHICAGO, ILL.
Lawton S. Parker
Mrs. Geo. W. Pullman
CINCINNATI, OHIO
M. M. Emery
C. P. Taft
CLEVELAND, OHIO
A. A. Augustus
James H. Hoyt

DETROIT, MICH.
Charles L. Freer
Col. F. J. Hecker

12

ELKINS PARK, PA. Joseph Widener

FALL RIVER, MASS.
C. H. Carr
FARMINGTON, CONN
Alfred A. Pope
FERNANDINA, FLA.
Lucy C. Carnegie
FRANKFORT, GERMANY
Baron Rothschild

GREENVILLE, CONN.
P. A. Rockefeller
GREENWICH, CONN.
E. B. Close
A. L. Fennesay
Wm. Rockefeller

ш

HAVERHILL, MASS.
A. D. Veasy
HOBOKEN, N. J.
A. LUDWIG

KANSAS CITY, Mo. Findlay Art Co.

L
LAKEWOOD, N. J.
Geo. J. Gould
Los Angeles, Cal.
H: E. Huntington
LOUISVILLE, KY.
E. Klauber

Madison, N. J.
F. A. Bell
Manchester, Mass.
W. de F. Kountze
Menton, Ohio
Jas E. Newell

MINNEAPOLIS, MINN.
Beard Art & Stationery Co.
F. N. Peavey
MONTREAL, CANADA
H. Montague Allan
Jas. Crattern
Hon. G. A. Drummond
E. B. Greenshields
Thos. Robertson
W. Scott & Sons

NEWPORT, R. I. J. D. Dickson J. D. Dickson
New Rochelle, N. Y.
Francis Wilson
New York, N. Y.
Thatcher N. Adams
W. R. Addicks
Mrs. Charles B. Alexander A. A. Anderson
H. D. Auchincloss
H. D. Babcock
J. S. Bache
E. R. Bacon
Mrs. P. Baerwald
Gordon Bell August Belmont
H. H. Benedict
Mrs. Abraham Bijou
C. K. G. Billings
J. A. Blair
Wm. H. Bliss W. H. Bliss
H. Blumenstetter
J. B. Breese
G. F. Brewster
S. S. Brown
W. L. Bull Frederick A. Chapman H. D. Cheever
Hugh J. Chisholm
Augustus W. Clark
Hon. W. A. Clark
Mrs. Ogden Codman
Wm. R. Coe Columbia Graphaphone Co. L. H. Crall John D. Crimmins James Deering
Democratic Club
Mrs. E. L. Dieckerhoff
J. F. Donthilt
Otto Eidlitz Jacob Eisner John W. Ellis J. J. Emery M. Flagg F. A. Forgee

Wm. Fox Circuit of Theatres J. E. French H. C. Frick Arthur Friedlander C. P. H. Gilbert E. Gimpel & Wildenstein Gordon Grant H. J. Grant Gen. F. V. Green B. J. Greenhut D. Guggenheim I. Guggenheim S. R. Guggenheim A. B. Gwathmey R. M. Haan Robert Handy Harry Harkness Harry Harkness
August Heckscher
C. M. Higgins
Wm. Hodge
Colgate Hoyt
Theo, Huneman
Mrs. C. P. Huntington
H. J. Hurlock Imperial Hotel A. C. James
B. Keith
F. A. Kreckhoefer
Charles Lamer Charles Lamer J. H. Lancashire Geo. Leary Mrs. W. M. Leeds J. Lewisohn Mrs. Philip Lydig MacDonald Galleries James McLean
Marseilles Hotel
R. F. Maynard
D. O. Mills
F. P. Moore F. P. Moore
Stephen Moore
Mrs. J. B. Morgan
Stanley Mortimer
Hon. Levi P. Morton
J. Pierpont Morgan
D. J. Murphy
F. Muschenheim
New York Athletic Club
W. L. Norrie
Old Harmony Club Old Harmony Club Prof. H. F. Osborne G. Pagenstecher W. F. Paris R. M. Parker F. S. Parks James Parmalle E. R. Perkins Henry Phipps

Mrs. Frank H. Platt C. M. Pratt J. T. Pratt Malph Pulitzer
Miss L. D. Putnam
W. A. Read
D. G. Reid
Hugo Reisinger
J. H. Rhodes Frank Ritter John D. Rockefeller Wm. Rockefeller Wm. Rocketener St. Regis Hotel H. L. Satterlee Jacob Schiff Geo. W. Schurman L. L. Schuyler Robert A. Scott A. Seton A. Seton Seville Hotel S. T. Shaw F. H. R. Smith Isaac Stern Mrs. Anson Phelph Stokes J. Strauss Ernest Thalman Mrs. Benj. Thaw W. N. Thayer Hamilton Todd Hamilton Todd
Robert Todd
Burrough Torrey
Mrs. J. G. Trever
Simon Ulmann
W. H. Vander Poel
W. C. Van Slyke
S. Varney
E. C. Victor
Wm. M. Wadsworth
Paul M. Warburg
Warwick House
G. P. Whittaker
G. L. Winthrop
Robert Winthrop Robert Winthrop Woodstock Hotel Mrs. W. H. Wawkey

Orange, N. J. E. F. Voelker

Paris, France
Edward Brandus
Montaignac
PHILADELPHIA, PA.
Charles E. Bushnell
David H. Tarr
Chas. Howell
Robert M. Lindsay

PITTSBURGH, PA.
H. Du Puy
W. Mellon
Frank W. Ray
L. U. Winderly Bros.
PLAINFIELD, N. J.
A. H. Atterbury
W. P. Mellick
PORTLAND, ORE.
C. F. Adams
PRINCETON, N. J.
A. D. Russell

RICHMOND, VA.
Lewis Ginter
ROCHESTER, N. Y.
Geo. Eastman
Hiram W. Sibley
Warham Whitney
ROSLYN, N. Y.
Clarence H. Mackay (Estate of)

ST. Louis, Mo.
Charles F. Bates
SAN FRANCISCO, CAL.
H. J. Breuer
Jacob Stern
SOUTHAMPTON, N. Y.
James C. Parich
SPRINGFIELD, MASS.
James A. Abbe

TRENTON, N. J.
Mrs. W. A. Roebling
TUXEDO PARK, N. Y.
H. P. Loomis

UTICA, N. Y. Fred T. Proctor

WASHINGTON, D. C.
Gallery Foreign Arts
R. H. Townsend
Otto S. Veerhoff
W. H. Veerhoff
WATERBURY, CONN.
GEO. L. White
WEBB CITY, MO.
E. T. Webb
WYOMING, OHIO
Wm. S. Stern

Y Yonkers, N. Y. Samuel Untermyer

#### Private Galleries

BOSTON, MASS.
Doll & Richards
BROOKLYN, N. Y.
Crescent Athletic Club
Prinz Bros.
James Shevlin
BUFFALO, N. Y.
Geo. L. Williams

CHELTON HILLS, PA.
Hon. John Wanamaker
CHICAGO, ILL.
M. A. Ryerson
CINCINNATI, OHIO
Matthew Addy
Gen. A. Goshorn
CORNWELLS, PA.
W. Seton Henry

ELKINS PARK, PA. Joseph Widener

GRAND RAPIDS, MICH. Mrs. E. J. Clark Ralph Tietsort

Menand, N. Y. Wm. H. Sage Montclair, N. J. Frank Taft

New Haven, Conn.
Hon. S. L. Bronson
Newport, R. I.
Elbridge T. Gerry
New York, N. Y.
Acacia Club
D. H. Anderson
Edward Brancus
Stephano Bourgevis Gallery
Camera Club
Andrew Carnegie
Cottier & Co.
Charles Daniel Gallery
Davis & Sanford
Dowdeswell & Dowdeswell
Downtown Club
E. Dreyfus
Durand, Ruel & Co.

Duveen Bros.
Ehrich Galleries
James W. Ellsworth
Fifth Avenue Auction Rooms
Fishel, Adler & Schwartz
Eugene Fishof & Co.
F. W. French & Co.
Freundschaft Society
Elbridge T. Gerry
E. Gimpel & Wildenstein
Benj. Griffen
Hess Galleries
Holland Art Galleries
J. D. Ichenhauser
C. Klacknew
F. Kleinberger Galleries
M. Knoedler & Co.
C. H. Kraushaar
Lewis & Simmons Gallery
Wm. MacBeth Gallery
F. A. McIntyre
The Edward Madison Co.
E. F. Milliken
Modern Galleries
N. E. Montross
R. C. Nickerson
C. E. Proetor
Salimagundie Club
Joseph Satinover
E. J. Schwabe
Scott & Fowles Co.
Mrs. Charles Senff
W. & J. Sloane Gallery
Mrs. Benjamin Thaw
Arthur Tooth & Sons
Union League Club
H. O. Watson & Co.
H. Wunderlich & Co.

PARIS, FRANCE
George Petit
Chas. Sedelmyer
PATERSON, N. J.
C. Lambert
PHILADELPHIA, PA.
David H. Farr
PITTSBURGH, PA.
J. J. Gillespie & Co.

ROCHESTER, N. Y.
W. S. Kimball
ROME, ITALY
Prince Giovani del Drago

SAN FRANCISCO, CAL. M. H. De Young J. Stern

Т

Torresdale, N. Y. Mrs. Robt. H. Foerderer Washington, D. C. U. S. National Museum

Winnipeg, Canada Sir Wm. Whyte

#### Public Galleries

ALBANY, N. Y.
Historical Society
State Educational Building

Maryland Institute
Maryland Institutional School
Boston, Mass.
Public Library
St. Botolph Club
R. H. White & Co.
Brooklyn, N. Y.
Brooklyn Ins. Arts & Sciences

C
CAMBRIDGE, MASS.
Widener Memorial Library
CHESTER, PA.
Deshong Memorial Art Gallery
CHICAGO, ILL.
Art Institute

DETROIT, MICH.
Detroit Art Museum

ERIE, PA. Public Library

GREENWICH, CONN.
Bruce Memorial Museum

HOLYOKE, MASS. Skinner Memorial

Montclair, N. J.
Montclair Art Museum
Muskegon, Mich.
Hackley Art Gallery

NEWARK, N. J. Newark Library New Britain, Conn.
New Britain Library
New Rochelle, N. Y.
New Rochelle Art Gallery
New York, N. Y.
American Art Galleries
American Art Galleries
American Art Gallery
Detroit Photo Co.
Fifth Avenue Art Gallery
Higgins & Seiter
Hispanic Library
Metropolitan Museum of Art
National Arts Club
New York Public Library
Administration Building
New York Zoological Society
Waldorf Art Galleries

P
PEPPENELL, MASS.
Lawrence Library
PHILADELPHIA, PA.
Drexel Institute
PITTSBURGH, PA.
Carnegie Library
PITTSFIELD, MASS.
Crane Museum
PORTLAND, ME.
Sweet Memorial Building
PROVIDENCE, R. I.
Rhode Island School of Design

SEATTLE, WASH.
Alaska-Pacific Yukon Exposition
SYRACUSE, N. Y.
Museum of Fine Arts

TRENTON, N. J.
Trenton School of Fine Arts
TROY, N. Y.
Hart Memorial Library
TLUSA, OKLA.
Carnegie Library

#### Concealed Lighting

A
ABERDEEN, N. D.
Page Memorial Building
AKRON, OHIO
F. A. Sieberling
AUGUSTA, ME,
A. W. Whitney

BATH, ME.
J. S. Hyde
BROOKLYN, N. Y.
Hall of Records
G. D. Pratt

CAMBRIDGE, MASS.
Widener Memorial Library
CAMBRIDGE, N. Y.
Edwin McClellan
CHICAGO, ILL.
G. A. Soden
CLEVELAND, OHIO
W. H. Kirns
Shaker Lakes Country Club

DETROIT, MICH.
Penobscot Music Room
George House

EDMONTA, CANADA University of Alberta

FALL RIVER, MASS. E. P. Charlton

GREENWICH, CONN. E. C. Converse

HOLYOKE, MASS.
Skinner Memorial
HYDE PARK, N. Y.
Archibald Rogers

K Kansas City, Kan. W. S. Dickey Montclair, N. J.
Montclair Art Museum
Morristown, N. J.
Theodore N. Vail

NEWARK, N. J.
ESSEX COUNTY COURT HOUSE
NEW HAVEN, CONN.
G. F. Brewster
NEW ROCHELLE, N. Y.
New Rochelle Art Gallery
NEW YORK, N. Y.
Wm. Barbour
E. D. Baylis
Belmont Hotel
George Blumenthal
Howard C. Brokaw
W. Gould Brokaw
James Burden James Burden James Burden
James A. Burden, Jr.
Cathedral St. John the Divine
Chamber of Commerce
Chemical National Bank
Church of Holy Cross
City College
Wm. P. Clyde
Geo. Carleton Comstock
J. F. Donahue
James A. Deering James A. Deering Democratic Club Stuart Duncan Engineering Association Henry C. Frick C. W. Haight Hall of Records Hall of Records
E. S. Harkness
Mrs. E. H. Harriman
F. C. Havemeyer
Hispanic Library
Hotel Woodstock
A. C. James
Warner M. Leeds
Mrs. Chas. E. F. McCann
F. A. McIntyre
Masonic Temple
Metropolitan Museum of Art
New Amsterdam Theatre New Amsterdam Theatre New York Edison Co.

Mrs. W. C. Osborne Pabst Harlem Casino
H. T. Parsons
Plaza Hotel
Ritz-Carlton Hotel
Julian W. Robbins
Archibald Rogers Elwood Rue St. Gabriel's Church St. Gabriel's Church
Chas. M. Schwab
Second Church of Christ Scientist
Sherry's Building
Thos. E. Stillman
Robert M. Thompson
Union League Club
Union Theological Seminary
U. S. Custom House
Waldorf-Astoria
H. Payne Whitney H. Payne Whitney
C. J. Wittenberg
E. T. Wittenberg
F. W. Woolworth

PEKING, CHINA
TSING HUA College Library
PHILADELPHIA, PA.
Majestic Hotel
Masonic Temple
PITTSBURGH, PA.
Carnegie Institute
Soldiers Memorial Building
PORTLAND, ME.
Sweet Memorial Building
POUGHKEEPSIE, N. Y.
Adriance Memorial Library
PRINCETON, N. J.
Biological Laboratory

ш

RIVERDALE-ON-HUDSON, N. Y. Geo. W. Perkins

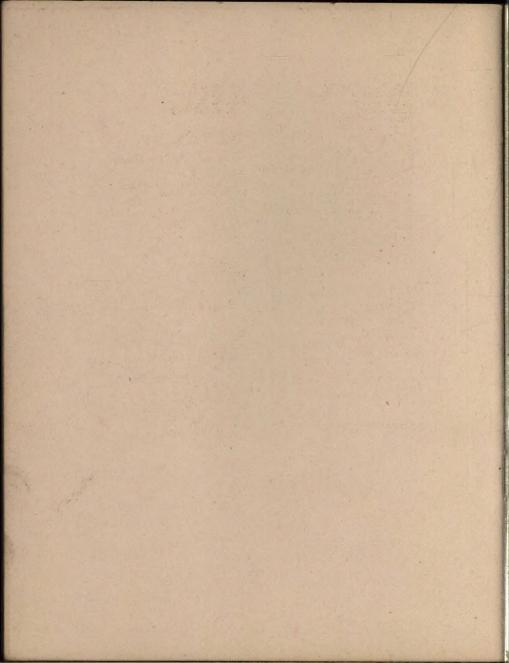
ROSEMONT, PA.
J. W. Converse
ROSLYN, N. Y.
H. P. Whitney

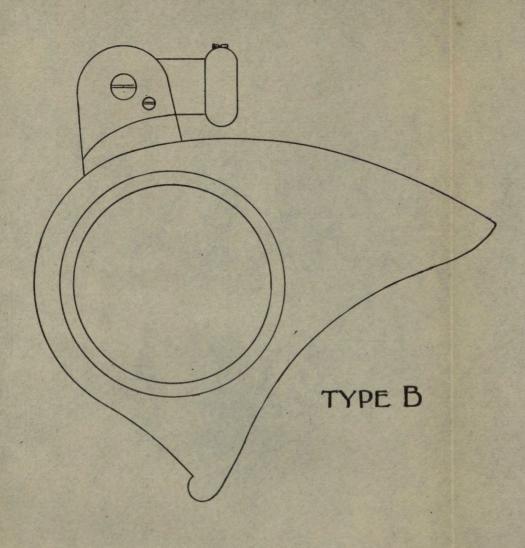
St. Louis, Mo. Dunker Resident SALEM, ORE. Supreme Court and Library Supreme Court and Library
Building
Scarboro, N. Y.
F. A. Vanderlip (Library)
Shrewsbury, Mass.
M. J. Whittal
Southampton, N. Y.
James Breese
Springfield, Mass.
Elle House Elks House

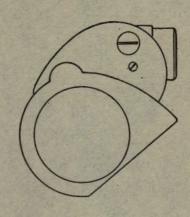
TARRYTOWN, N. Y. C. W. Halle Toledo, Ohio Toledo Club
Toronto, Canada
C. V. Beatty
Sir H. M. Pellatt

W

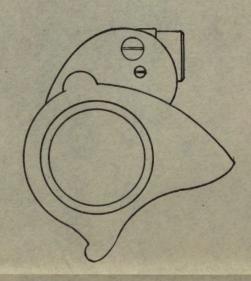
Washington, D. C. Wm. T. Cambridge T. T. Gaff Memorial to the Women of the Civil War New Metropolitan Club Union Station WINNIPEG, CANADA
Ft. Gary Station
WORCESTER, MASS.
H. W. Goddard
WYNCOTE, PA.
C. H. K. Curtis



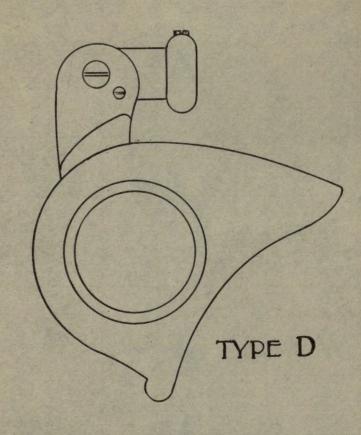




TYPE E



TYPE C



DRAWINGS SHOW FULL SIZE END VIEW OF REFLECTORS

## I. P. FRINK INC.

REFLECTOR TYPE	LENGTH	Nº OF LAMPS	TYPE LAMPS	Nº OF BRACKETS	SDACING.
В	10"	1	T. 10	1	IN CENTRE
u u	14"	2		1	"
"	24"	3	"	1	*
и	30'	4		2	18"
μ	38"	5		2	24"
	45"	6	4	2	30"
D	8"	1	n	1	CENTRE
"	14"	2	i	1	11
	24"	2	,	1	"
" -	30"	4	"	2	18"
,	38"	5	//	2	24"
11	45"	6	"	2	30"
C	74"	1	CANDELABRA T-6° F-8	1	CENTRE
n	12"	2	11	1	11
E	6"	1	CANDELABRA T.6	i	
и	10"	2	lt	1	

